UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM01/0925

BRAD A ARMSTRONG
PO BOX 1419
PARADISE CA 95967

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/148,806	09/04/98	031	EDWARDS JR, T 2735	09/25/00
First Named Applicant ARMSTRONG,		35 USC 154(b) term ext. =	0 Days.	

TITLE OF INVENTION: REMOTE CONTROLLER WITH ANALOG BUTTON (S)

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	341-034.000	S68	UTILITY	YES	$605.00	12/26/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No.	Applicant(s)
09/148,806	Armstrong
Examiner	**Group Art Unit**
Timothy Edwards	2735

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to *telephone interview Sept 21, 2000*.

☒ The allowed claim(s) is/are *1-31 (re-numbered)*.

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☒ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

EXAMINER'S AMENDMENT

Drawings

1. The following changes to the drawings have been approved by the examiner and agreed upon by applicant, based on agreement over telephone: the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels must be shown. The drawing must show every feature of the invention specified in the claims as per 37 CFR 1.83(a). In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes. Examiner suggests the selectable pressure level feature be added to fig 21.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brad Armstrong on Sept 25, 2000.

2. The application has been amended as follows:

IN THE CLAIMS:

Please amend the claims as follows.

B

Claim 6, line 3, after, 'source', delete "within said housing".

Claims 9 and 10, line 3, delete "more narrowly", insert --further--.

Claims 30 and 31, line 1, delete "an improved", insert --a--.

1. (Twice amended) An improved hand-hold-able remote controller structure for controlling a host device, said remote controller of the type including a housing, an electrical power source, electronic circuitry within said housing connected to said power source and including an emitter for emitting function-control signals from said housing, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically associated with said circuitry for allowing user selection of function-control signals emitted for controlling a host device; at least one of said sensors including a depressible dome-cap member and a pressure-sensitive variable-conductance analog material capable of providing at least three readable states of varied conductance, said states dependant upon depressive pressure applied to tho variable-conductance analog material through depression of at least one of said finger depressible buttons against the dome-cap member;

wherein the improvement comprises:

said circuitry including means for reading said at least three readable states said variable-conductance analog material and for emitting distinct function-control signals for each of at least two states of said at least three readable states[.],

wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels.

2. (Twice amended) An improved hand-hold-able remote controller for controlling a host device, said remote controller of the type including a housing, an electrical power source [within said housing], electronic circuitry within said housing connected to said power source and including means for outputting function-control signals from said housing, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically associated with said circuitry for allowing user selection of function-control signals output for controlling a host device; a plurality of said sensors read by said circuitry as sensors having only two readable states;

wherein the improvements comprise:

at least one of said sensors structured as a pressure sensitive variable-conductance analog sensor to provide at least three readable states of varied conductance, said states dependant upon depressive pressure applied to the variable conductance analog sensor;

said circuitry including means for reading said at least three readable states and for outputting distinct function-control signals for each of at least two states of said at least three readable~states[.],

wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels.

19 3. (Twice amended) An improved hand-hold-able remote controller for controlling a host device, said remote controller of the type including a housing, an electrical power source [within said housing], electronic circuitry within said housing connected to said power source and including an emitter positioned to emit function-control signals from said housing, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically associated with said circuitry for allowing user selection of function-control signals emitted for controlling a host device;

B 3

wherein the improvements comprise:

at least two of said sensors each structured to include pressure sensitive variable-conductance analog material to provide at least three readable states of varied conductance from each sensor of said at least two of said sensor, said states dependant upon depressive pressure applied individually to the sensors of said at least two of said sensors;

said circuitry including means for reading said at least three readable states and for emitting function-control signals representative of each of at least two states of said at least three readable states;

a first sensor of said at least two of said sensors, said first sensor associated with a first button of said finger depressible buttons, said first button variably depressible to allow applying varied depressive pressure to said first sensor, said first sensor associated with means of said circuitry for reading said at least three readable states and emitting tuner channel-up selecting type of said function-control signals;

59

a second sensor of said at least two of said sensors, said second sensor associated with a second button of said finger depressible buttons,, said second button variably depressible to allow applying varied depressive pressure to said second sensor, said second sensor associated with means of said circuitry for reading said at least three readable states and emitting tuner channel-down selecting type of said function-control signals [.],

wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels.

---

5. (Twice amended) An improved hand-hold-able remote controller for controlling a host device, said remote controller of the type including a housing, an electrical power source [within said housing], electronic circuitry within said housing connected to said power source and including an emitter positioned to emit function-control signals outward as radiation from said housing, a plurality of finger depressible buttons exposed on said housing and interfacing with sensors electrically associated with said circuitry for allowing user selection of function-control signals emitted for controlling a host device; a plurality of said sensors read by said circuitry as sensors having only two readable states;

wherein the improvements comprise:

at least one of said sensors structured as a pressure sensitive variable-conductance analog sensor for varying conductance through at least three readable states, said states dependant upon depressive pressure applied to an associated finger depressible button; and

said circuitry structured for reading any one state of said at least three readable states, and for emitting by said emitter

a first signal type and

a second signal type, emission of either one of the signal types determined by an amount of time of depression of said button, and said second signal type further including a signal representative of a depressive level of depressive pressure applied to said button[.],

wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels.

---

11. (Twice amended) A method of manufacturing [an improved] a hand-held remote controller including the [known prior art] steps of: molding a housing, installing means for receiving a power

source within said housing; installing electronic circuitry within said housing and connected to said means for receiving said power source installing a plurality of finger depressible buttons with sensors electrically associated with said circuitry; [said circuitry for reading a plurality of said sensors as sensors having only two readable values; and

further including the novel combined steps of:]

installing a flexible dome-cap member as a component of at least one of said sensors:

installing pressure sensitive variable-conductance material under said flexible dome-cap member, said material positioned to be activated by depression of one of the depressible buttons,

said variable-conductance material structurally arranged to provide at least three readable analog values, said values dependant upon depressive pressure applied to said one of the depressible buttons;

installing circuitry for reading an immediate value of said at least three readable analog values of the pressure-sensitive variable-conductance material, and for outputting from said controller, data representative of the immediate value,

[whereby said improved remote controller is manufactured for outputting data representative of the depressive pressure applied to said one of the depressible buttons.]

wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance: prior art does not teach or suggest the limitation, "wherein, the user selects any of the selectable pressure levels, of a plurality of selectable pressure levels".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication should be directed to Examiner Timothy Edwards at telephone number (703) 305-4896. The examiner can normally be reached on Monday-Thursday, 8:30a-4:00p. The examiner can not be reached on Fridays.

If attempt to reach the examinee by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on (703) 305-4704.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-8576, Mon-Fri., 8:30a-5:00p.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Timothy Edwards
September 25, 2000

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
GROUP 2700